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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,854	06/09/2006	Euijoon Yoon	20506/0203830-US0	3828
7278	7590	10/28/2008		
DARBY & DARBY P.C. P.O. BOX 770 Church Street Station New York, NY 10008-0770			EXAMINER MALDONADO, JULIO J	
			ART UNIT 2823	PAPER NUMBER
			MAIL DATE 10/28/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	<p>Application No. 10/563,854</p>	<p>Applicant(s) YOON ET AL.</p>	
	<p>Examiner JULIO J. MALDONADO</p>	<p>Art Unit 2823</p>	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 08 October 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☒ Applicant's reply has overcome the following rejection(s): 35 USC 103(a).
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: 13 and 14.
Claim(s) rejected: 1-12 and 15-19.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

/George Fourson/
Primary Examiner, Art Unit 2823

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments filed 10/08/2008 have been fully considered but they are not persuasive.

Applicants argue, "...Claims 1, 15 and 16 are rejected under 35 U.S.C. § 112, first paragraph for failing to comply with the written description requirement. Applicants respectfully traverse the rejection. Support for "collectively increasing" the semiconductor layers can be found in the Specification. For example, the Specification, page 6, lines 6-9, discloses "[i]n a preferred embodiment, the nitride semiconductor epitaxial layer 110 is GaN that is formed by two steps of growing a low-temperature buffer layer and growing a high-temperature layer on the low-temperature buffer layer." To grow a high-temperature layer on the low-temperature layer requires at least collectively increasing the temperature of these layers. This growth method was described in U.S. Patent No. 5, 290,393, which is disclosed in the Specification at page 1, lines 19-23...As to the growth of a third nitride semiconductor epitaxial layer 130, the Specification, at pages 6, line 22 bridging through page 7, line 1, discloses that "a nitride semiconductor epitaxial layer 130 is grown on the nitride semiconductor epitaxial layer 120." Accordingly, the Specification provides support for the features of pending claims 1, 15 and 16..."

In response to the applicants' argument, claims 1, 15 and 16 as amended in the reply filed on 03/28/2008 recites a step of releasing nitrogen from a second nitride layer (claims 1 and 16), or converting a nitride layer into a metal layer (claim 15) by collectively increasing a temperature of a first, second and third nitride layers. The support argued by the applicants is for a deposition temperature, which is at a different stage of the manufacturing process, not during the decomposition of said second nitride layer. Furthermore, the disclosed specification teaches wherein the second and the third semiconductor layers are formed at a temperature of 300oC to 800oC (page 6, line 21 - page 7, line 11), and, after forming said nitride layers, a temperature is raised to 900oC or more to decompose said second nitride layer (page 8, lines 12 - 18). There is no support to any specific heating that would render the claim language in claims 1, 15 and 16 inherent. Also, although it is inherent that the decomposing of the second nitride layer will heat the first and third nitride layer, there is no support in the specification for the claim language in claims 1, 15 and 16. Therefore, the rejection of claims 1, 15 and 16 is not withdrawn in view of the applicants' arguments.